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HISTORY OF THE SEWING MACHINE.

By JAMES PARTON.

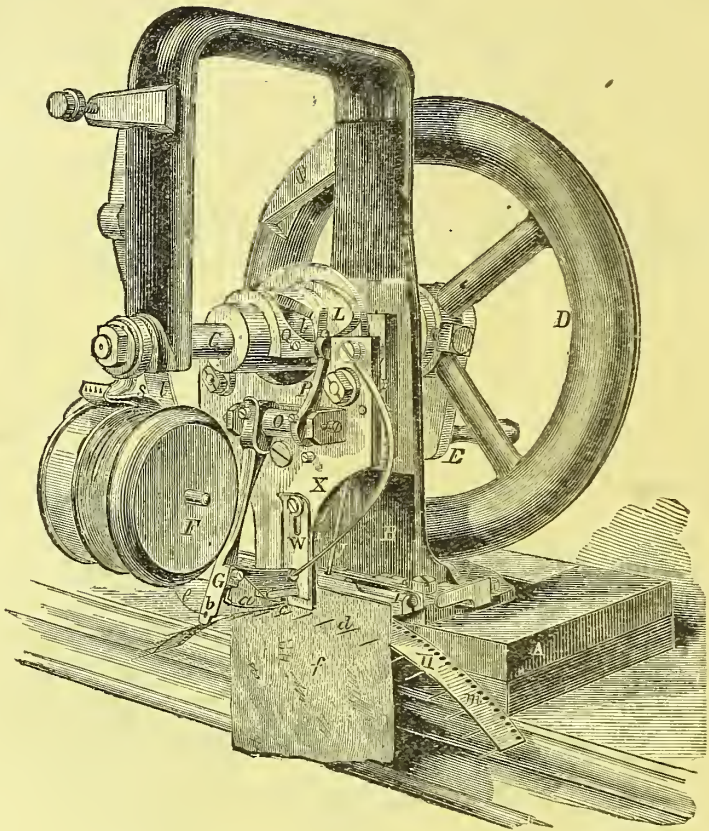
AS ORIGINALLY PUBLISHED IN THE "ATLANTIC MONTHLY" FOR MAY, 1867.



The Howe Machine Company,

7 Fayetteville Street,

RALEIGH, N. CAR.



CUT OF THE

First Sewing Machine.

ELIAS HOWE, Jr., Inventor.

THIS Machine embraces all the principles of Sewing by Machinery embodied in all the Sewing Machines now in use, and in its crude form makes perfect work at the rate of 300 stitches a minute.

HISTORY

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OF

THE SEWING MACHINE.

BY JAMES PARTON.

IN Cornhill, Boston, thirty years ago, there was a shop for the manufacture and repair of nautical instruments and philosophical apparatus, kept by ARI DAVIS. Mr. DAVIS was a very ingenious mechanic, who had invented a successful dovetailing machine, much spoken of at the time, when inventions were not as numerous as they are now. Being thus a noted man in his calling, he gave way to the foible of affecting an oddity of dress and deportment. It pleased him to say extravagant and nonsensical things, and to go about singing, and to attract attention by unusual garments. Nevertheless, being a really skilful mechanic, he was frequently consulted by the inventors and improvers of machinery, to whom he sometimes gave a valuable suggestion.

In the year 1839 two men in Boston—one a mechanic and the other a capitalist—were striving to produce a knitting machine, which proved to be a task beyond their strength. When the inventor was at his wit's end his capitalist brought the machine to the shop of ARI DAVIS, to see if that eccentric genius could suggest the solution of the difficulty, and make the machine work. The shop, resolving itself into a committee of the whole, gathered about the knitting machine and its proprietor, and were listening to an explanation of its principle when DAVIS, in his wild, extravagant way, broke in with these words: "What are you bothering yourselves with a knitting machine for? Why don't you make a sewing machine?"

"I wish I could," said the capitalist; "but it can't be done,"

"O, yes it can," said DAVIS; "I can make a sewing machine myself."

"Well," said the other, "you do it, DAVIS, and I'll insure you an independent fortune."

There the conversation dropped, and it was never resumed. The boastful remark of the master of the shop was considered merely one of his sallies of affected extravagance, as it really was; and the response of the capitalist to it was uttered without a thought of producing an effect. Nor did it produce any effect upon the person to whom it was addressed. DAVIS never attempted to construct a sewing machine.

Among the workmen who stood by and listened to this conversation was a young man from the country, a new hand, named ELIAS HOWE, then twenty years old. The person whom we have named the capitalist, a well dressed and fine looking man, somewhat consequential in his manners, was an imposing figure in the eyes of this youth, new to city ways, and he was much impressed with the emphatic assurance that a fortune was in store for the man who should invent a sewing machine. He was the more struck with it because he had already amused himself with inventing some slight improvements, and recently he had caught from DAVIS the habit of meditating new devices. The spirit of invention, as all mechanics know, is exceedingly contagious. One man in a shop who invents something that proves successful will give the mania to half his companions, and the very apprentices will be tinkering over a device after their day's work is done. There were other reasons, also, why a conversation so trifling and accidental should have strongly impressed itself upon the mind of this particular youth. Before that day the idea of sewing by the aid of a machine had never occurred to him.

ELIAS HOWE, the inventor of the sewing machine, was born in 1819, at Spencer, in Massachusetts, where his father was a farmer and miller. There was a grist mill, a saw mill and a shingle machine on the place; but all of them together, with aid of the farm, yielded but a slender revenue for a man blessed with eight children. It was a custom in that neighborhood, as in New England generally, forty years ago, for families to carry on some kind of manufacture at which the children could assist. At six years of age ELIAS HOWE worked with his brothers and sisters at sticking the wire teeth into strips of leather for "cards," used in the manufacture of cotton. As soon as he was old enough he assisted upon the farm and in the mills, attending the district school in the winter months. He is now of opinion that it was the rude and simple mills belonging to his father which gave his mind its bent toward machinery; but he cannot remember that this bent was very decided, nor that he watched the operation of the mill with much attention to the mechanical principles involved. He was a

careless, playloving boy, and the first eleven years of his life passed without an event worth recording. At eleven he went to "live out" with a farmer of the neighborhood, intending to remain until he was twenty-one. A kind of inherited lameness rendered the hard work of a farmer's boy distressing to him; and, after trying it for a year, he returned to his father's house and resumed his place in the mills, where he continued until he was sixteen.

One of his young friends returning from Lowell about this time, gave him such a pleasing description of that famous town that he was on fire to go thither. In 1835, with his parent's reluctant consent, he went to Lowell, and obtained a learner's place in a large manufactory of cotton machinery, where he remained until the crash of 1837 closed the mills of Lowell and sent him adrift, a seeker after work. He went to Cambridge, under the shadow of venerable Harvard. He found employment there in a large machine shop, and was set at work upon the new hemp carding machinery invented by Professor TREADWELL. His cousin, NATHANIEL P. BANKS, since Speaker of the House of Representatives and Major General, worked in the same shop and boarded in the same house with him. After working a few months at Cambridge, ELIAS HOWE found employment more congenial in Boston, at the shop of ARI DAVIS, where the conversation occurred which we have just related.

Judging merely by appearances, no one would have pitched upon *him* as the person likely to make one of the revolutionizing inventions of the age. Undersized, curly headed, and exceedingly fond of his joke, he was, at twenty, more a boy than a man. Nor was he very proficient in his trade, nor inclined to put forth extra exertion. Steady labor was always irksome to him, and frequently, owing to the constitutional weakness to which we have alluded, it was painful. He was not the person to seize an idea with avidity and work it out with the passionate devotion of a WATT or a GOODYEAR. The only immediate effect upon him of the conversation in the shop of Mr. DAVIS was to induce a habit of reflecting upon the art of sewing, watching the process as performed by hand, and wondering whether it was within the compass of the mechanic arts to do it by machinery. His uppermost thought in those years was, what a waste of power to employ the ponderous human arm, and all the intricate machinery of the fingers, in performing an operation so simple, and for which a robin's strength would suffice! Why not draw twelve threads through at once, or fifty? And sometimes, while visiting a shop where army and navy clothing was made, he would look at the heaps of unsewed

garments, all cut alike, all requiring the same stitch, the same number of stitches, and the same kind of seam, and say to himself, "What a pity this cannot be done by machinery! It is the very work for a machine to do." Such thoughts, however, only flitted through his mind now and then; he was still far from any serious attempt to construct a machine for sewing up the blue trowsers.



"May there not be ANOTHER Stitch?"

At twenty-one, being still a journeyman machinist, earning nine dollars a week, he married; and, in time, children came with inconvenient frequency. Nine dollars is a fixed quantity, or, rather, it was *then*; and the addition of three little mouths to be fed from it, and three little backs to be clothed by it, converted the vivacious father into a thoughtful and plodding citizen. His day's labor at this time, when he was upon heavy work, was so fatiguing to him that, on reaching his home, he would sometimes be too exhausted to eat, and he would go to bed, longing as we have heard him say, "to lie in bed forever and ever." It was the pressure of poverty and this extreme fatigue

that caused him, about the year 1843, to set about the work of inventing the machine which he had heard four years before would be an "independent fortune" to the inventor. Then it was that he caught the inventor's mania, which gives its victims no rest and no peace till they have accomplished the work to which they have abandoned themselves.

He wasted many months on a false scent. When he began to experiment his only thought was to invent a machine which should do what he saw his wife doing when she sewed. He took it for granted that sewing must be *that*, and his first device was a needle pointed at both ends, with the eye in the middle, that should work up and down through the cloth, and carry the thread through it at each thrust.

Hundreds of hours, by night and by day, he brooded over this conception, and cut many a basket of chips in the endeavor to make something that would work such a needle so as to form a common stitch. He could not do it. One day, in 1844, the thought flashed upon him: Is it necessary that a machine should imitate the performance of the hand? May there not be *another* stitch? This was the crisis of the invention. The idea of using two threads, and forming a stitch by the aid of a shuttle and a curved needle, with the eye near the point, soon occurred to him, and he felt that he had invented a sewing machine. It was in the month of October, 1844, that he was able to convince *himself*, by a rough model of wood and wire, that such a machine as he had projected would sew.

At this time he had ceased to be a journeyman mechanic. His father had removed to Cambridge, to establish a machine for cutting palm leaf into strips for hats—a machine invented by a brother of the elder HOWE. Father and son were living in the same house, into the garret of which the son had put a lathe and a few machinist's tools, and was doing a little work on his own account. His ardor in the work of invention robbed him, however, of many hours that might have been employed, his friends thought, to better advantage by the father of a family. He was extremely poor, and his father had lost his palm leaf machine by a fire. With an invention in his head that has since given him more than two hundred thousand dollars in a single year, and which is now yielding a profit to more than one firm of a thousand dollars a day, he could scarcely provide for his little family the necessaries of life; nor could this invention be tested except by making a machine of steel and iron, with the exactness and finish of a clock. At the present time, with a machine before him for a model, a good mechanic could not, with his ordinary tools, construct a sew-

ing machine in less than two months, nor at a less expense than three hundred dollars. ELIAS HOWE had only his model in his head, and he had not money enough to pay for the raw material requisite for one machine.

There was living then at Cambridge a young friend and schoolmate of the inventor, named GEORGE FISHER, a coal and wood merchant, who had recently inherited some property, and was not disinclined to speculate with some of it. The two friends had been in the habit of conversing together upon the project of the sewing machine. When the inventor had reached his final conception, in the fall of 1844, he succeeded in convincing GEORGE FISHER of its feasibility, which led to a partnership between them for bringing the invention into use. The terms of this partnership were these: GEORGE FISHER was to receive into his house ELIAS HOWE and his family, board them while ELIAS was making the machine, give up his garret for a workshop, and provide money for material and tools, to the extent of five hundred dollars; in return for which he was to become the proprietor of one-half the patent, if the machine proved to be worth patenting. Early in December, 1844, ELIAS HOWE moved into the house of GEORGE FISHER, set up his shop in the garret, gathered materials about him and went to work. It was a very small, low garret, but it sufficed for one zealous, brooding workman, who did not wish for gossiping visitors.

It is strange how the great things come about in this world. This GEORGE FISHER, by whose timely aid such an inestimable boon was conferred upon womankind, was led into the enterprise as much by good nature as by expectation of profit, and it was his easy acquisition of his money that made it easy for him to risk it. So far as we know, neither of the parties indulged in any dream of benevolence. HOWE wanted to invent a sewing machine to deliver himself from that painful daily toil, and FISHER was inclined to aid an old friend, and not disinclined to own a share in a valuable patent. The greatest doers of good have usually proceeded in the same homely spirit. Thus SHAKESPEARE wrote, thus COLUMBUS sailed, thus WATT invented, thus NEWTON discovered. It seems, too, that GEORGE FISHER was ELIAS HOWE's only convert. "I believe," testified GEORGE FISHER, in one of the great sewing machine suits, "I was the only one of his neighbors and friends in Cambridge that had any confidence in the success of the invention. He was generally looked upon as very visionary in undertaking anything of the kind, and I was thought very foolish in assisting him." It is the old story.

All the winter of 1844-45 Mr. HOWE worked at his machine. His conception of what he intended to produce was so clear and complete that he was little delayed by failures, but worked on with almost as much certainty and steadiness as though he had a model before him. In April he sewed a seam by his machine. By the middle of May, 1845, he had completed his work. In July he sewed by his machine all the seams of two suits of woollen clothes—one suit for Mr. FISHER and the other for himself—the sewing of both of which outlasted the cloth. This first of all sewing machines, after crossing the ocean many times, and figuring as a dumb but irrefutable witness in many a court, may still be seen at Mr. HOWE'S office in Broadway, where, within these few weeks, it has sewed seams in cloth at the rate of three hundred stitches a minute. It is agreed by all disinterested persons (Professor RENWICK among others) who have examined this machine, that ELIAS HOWE, in making it, carried the invention of the sewing machine farther on towards its complete and final utility than any other inventor has ever brought a first rate invention at the first trial. It is a little thing, that first machine, which goes into a box of the capacity of about a cubic foot and a half. Every contrivance in it has been since improved, and new devices have been added, but no successful sewing machine has ever been made, of all the seven hundred thousand now in existence, which does not contain some of the essential devices of this first attempt. We make this assertion without hesitation or reserve, because it is, we believe, the one point upon which all the great makers are agreed. Judicial decisions have repeatedly affirmed it.

Like all the other great inventors, Mr. Howe found that, when he had completed his machine, his difficulties had but begun. After he had brought the machine to the point of making a few stitches, he went to Boston one day to get a tailor to come to Cambridge and arrange some cloth for sewing, and give his opinion as to the quality of the work done by the machine. The comrades of the man to whom he first applied dissuaded him from going, alleging that a sewing machine, if it worked well, must necessarily reduce the whole fraternity of tailors to beggary; and this proved to be the unchangeable conviction of the tailors for the next ten years. It is probable that the machines first made would have been destroyed by violence but for another fixed opinion of the tailors, which was that no machine could be made that would really answer the purpose. It seems strange now that the tailors of Boston could have persisted so long in such an opinion, for Mr. HOWE, a few weeks after he had finished his first

model, gave them an opportunity to see what it could do. He placed his little engine in one of the rooms of the Quincy Hall Clothing Manufactory, and, seating himself before it, offered to sew up any seam that might be brought to him. One unbelieving tailor after another brought a garment, and saw its long seams sewed perfectly, at the rate of two hundred and fifty stitches a minute, which was about seven times as fast as the work could be done by hand. For



The first Contest between Hand and Machine Sewing at Quincy Hall, Boston.

two weeks he sat there daily, and sewed up seams for all who chose to bring them to him. He amused himself at intervals in executing rows of ornamental stitching, and he showed the strength of the machine by sewing the thick plaited skirts of frock coats to the bodies. At last he challenged five of the swiftest seamstresses in the establishment to sew a race with the machine. Ten seams of equal length were prepared for sewing, five of which were laid by the machine, and the other five were given to the girls. The gentleman who held the watch, and who was to decide the wager, testified upon

oath that the five girls were the fastest sewers that could be found, and that they sewed as "fast as they could—much faster than they were in the habit of sewing"—faster than they could have kept on for one hour. Nevertheless, Mr. HOWE finished his five seams a little sooner than the girls finished their five; and the umpire, who was himself a tailor, has sworn that "the work done on the machine was the neatest and strongest."

Upon reading testimony like this we wonder that manufacturers did not instantly set Mr. HOWE at work making sewing machines. Not one was ordered; not a tailor encouraged him by word or deed. Some objected that the machine did not make the whole garment; others dreaded to encounter the fierce opposition of the journeymen; others really thought it would beggar all hand sewers, and refrained from using it on principle; others admitted the utility of the machine, and the excellence of the work done by it, but, said they, "We are doing well as we are, and fear to make such a change." The great cost of the machine was a most serious obstacle to its introduction. A year or two since Mr. HOWE caused a copy of his first machine to be made for exhibition in his window, and it cost him two hundred and fifty dollars. In 1845 he could not have furnished his machine for less than three hundred dollars, and a large clothier or shirt maker would have required thirty or forty of them.

The inventor was not disheartened by the result of the introduction of the machine. The next thing was to get the invention patented, and Mr. HOWE again shut himself up in GEORGE FISHER'S garret for three or four months, and made another machine for deposit in the Patent Office. In the spring of 1846, there being no prospect of revenue from the invention, he engaged as "engineer" upon one of the railroads terminating at Boston, and "drove" a locomotive daily for some weeks; but the labor proved too much for his strength, and he was compelled to give it up. Late in the summer the model and the documents being ready for the Patent Office, the two associates treated themselves to a journey to Washington, where the wonderful machine was exhibited at a Fair, with no results except to amuse the crowd. September 10, 1846, the patent was issued, and soon after the young men returned to Cambridge.

GEORGE FISHER was now totally discouraged. He had maintained the inventor and his family for many months; he had provided the money for the tools and material for two machines; he had paid the expenses of getting the patent and of the journey to Washington; he had advanced in all about two thousand dollars, and he saw not the

remotest probability of the invention becoming profitable. ELIAS HOWE moved back to his father's house, and GEORGE FISHER considered his advance in the light of a dead loss. "I had lost confidence," he has since testified, "in the machine's ever paying anything."

But mothers and inventors do not give up their offspring so. America having rejected the invention, Mr. HOWE resolved to offer it to England. In October, 1846, his brother, AMASA B. HOWE, with the assistance of their father, took passage in the steerage of a sailing packet, and conveyed one of the machines to London. An English-



"I am Poor, but will not Kneel to one who Treads your Soil."

man was the first manufacturer who had faith enough in the American sewing machine to invest money in it. In Cheapside AMASA HOWE came upon the shop of WILLIAM THOMAS, who employed, according to his own account, five thousand persons in the manufacture of corsets, umbrellas, valises, carpet bags and shoes. WILLIAM THOMAS examined and approved the machine. Necessity, as Poor Richard remarks, cannot make a good bargain; but the bargain which it made on this oc-

casion, through the agency of AMASA B. HOWE, was signally bad. He sold to Mr. THOMAS, for two hundred and fifty pounds sterling, the machine he had brought with him, and the right to use as many others in his own business as he desired. There was also a verbal understanding that Mr. THOMAS was to patent the invention in England, and, if the machine came into use there, he was to pay the inventor three pounds on every machine sold. That was an excellent day's work for WILLIAM THOMAS, of Cheapside. The verbal part of the bargain has never been carried out. He patented the invention, and ever since the machines began to be used all sewing machines made in England, or imported into England, have paid tribute to him at the rate of ten pounds or less for each machine. ELIAS HOWE is of opinion that the investment of that two hundred and fifty pounds has yielded a profit of one million dollars. Mr. THOMAS further proposed to engage the inventor to adapt the machine to the work upon corsets, offering him the munificent stipend of three pounds a week, and to defray the expense of workshop, tools and material.

AMASA B. HOWE returned to Cambridge with this offer. America being still insensible to the charms of the new invention, and the two hundred and fifty pounds having been immediately absorbed by the long accumulating necessities of the family, and there being no prospect of advantageous employment at home, ELIAS HOWE accepted the offer, and both brothers set sail for London February 5th, 1847. They went in the steerage and cooked their own provisions. WILLIAM THOMAS provided a shop and its requisites, and even advanced money for the passage to England of the inventor's family, who joined him soon—wife and three children. After eight months of labor the inventor succeeded in adapting his machine to the purposes of the stay-maker, and when this was done the stay-maker apparently desired to get rid of the inventor. He required him to do the miscellaneous repairs, and took the tone with him which the ignorant purse-holder, in all lands, is accustomed to hold in his dealings with those to whom he pays wages. The Yankee, of course, resented this behavior, and WILTHOMAS discharged ELIAS HOWE from his employment.

To be a poor stranger, with a sick wife and three children in America, is to be in a purgatory that is provided with a practicable door into paradise; to be such a person in London is to be in a hell without visible outlet.

Since undertaking to write this little history of the sewing machine we have gone over about thirty thousand pages of printed testimony, taken in the numerous suits to which sewing machine patents have

given rise. Of all these pages the most interesting are those from which we can gather the history of ELIAS HOWE during the next few months. From a chance acquaintance, named CHARLES INGLIS, a coachmaker, who proved to be a true friend, he hired a small room for a workshop, in which, after borrowing a few tools, he began to construct his fourth sewing machine. Long before it was finished he saw that he must reduce his expenses or leave his machine unfinished. From three rooms he removed his family to one, and that a small one in the cheapest quarter of Surrey. Nor did that economy suffice; and he resolved to send his family home while he could, and trust to the machine in hand for the means to follow them.



"Loan me a few Shillings, that I may pay the Washing and send my sick wife and children to America."

"Before his wife left London," testifies Mr. INGLIS, "he had frequently borrowed money from me in sums of five pounds, and requested me to get him credit for provisions. On the evening of Mrs. Howe's departure the night was very wet and stormy, and, her health

being delicate, she was unable to walk to the ship. He had no money to pay the cab hire, and he borrowed a few shillings from me to pay it, which he repaid by pledging some of his clothing. Some linen came home from his washerwoman for his wife and children, on the day of her departure; she could not take it with her, on account of not having money to pay the woman." After the departure of his family the solitary inventor was still more severely pinched. "He has borrowed a shilling from me," says Mr. INGLIS, "for the purpose of buying beans, which I saw him cook and eat in his own room."



In a low London Garret, Cooking his Food, he gazes on his Machine, exclaiming, "I will Pawn this and Start for America."

After three or four months of labor the machine was finished. It was worth fifty pounds. The only customer he could find for it was a workingman of his acquaintance, who offered five pounds for it if he could have time to pay it in. The inventor was obliged to accept this offer. The purchaser gave his note for the five pounds, which CHARLES INGLIS succeeded in selling to another mechanic for four pounds. To pay his debts and his expenses home, Mr. HOWE pawned

his precious first machine and his letters patent. "He drew a hand-cart, with his baggage on it, to the ship, to save the expense of cartage;" and again he took passage in the steerage, along with his English friend, CHARLES INGLIS. His brother AMASA had long before returned to America.

In April, 1849, ELIAS HOWE landed in New York, after an absence of two years from the country, with half a crown in his pocket. Four years had nearly elapsed since the completion of his first machine, and this small piece of silver was the net result of his labors upon that invention. He and his friend went to one of the cheapest emigrant boarding houses, and ELIAS HOWE sought employment in the machine shops, which luckily he found without delay. The news reached him soon that his wife was dying of consumption, but he had not the money for a journey to Cambridge. In a few days, however, he received ten dollars from his father, and he was thus enabled to reach his wife's bedside and receive her last breath. He had no clothes except those he daily wore, and was obliged to borrow a suit from his brother-in-law in which to appear at the funeral. It was remarked by his old friends that his natural gayety of disposition was quite quenched by the severity of his recent trials. He was extremely down-cast and worn. He looked like a man just out after a long and agonizing sickness. Soon came intelligence that the ship in which he had embarked all his household goods had been wrecked off Cape Cod, and was a total loss.

But now he was among friends who hastened to relieve his immediate necessities, and who took care of his children. He was soon at work; not, indeed, at his beloved machine, but at work which his friends considered much more rational. He was again a journeyman machinist, at weekly wages.

As nature never bestows two eminent gifts upon the same individual, the man who makes a great invention is seldom the man who prevails upon the public to use it. Every WATT needs his BOULTON. Neither GEORGE FISHER nor ELIAS HOWE possessed the executive force requisite for so difficult a piece of work as the introduction of a machine which then cost two or three hundred dollars to make, and upon which a purchaser had to take lessons as upon the piano, and which the whole body of tailors regarded with dread, aversion or contempt. It was reserved, therefore, for other men to educate the people into availing themselves of this exquisite labor-saving apparatus.

Upon his return home, after his residence in London, ELIAS HOWE discovered, much to his surprise, that the sewing machine had be-

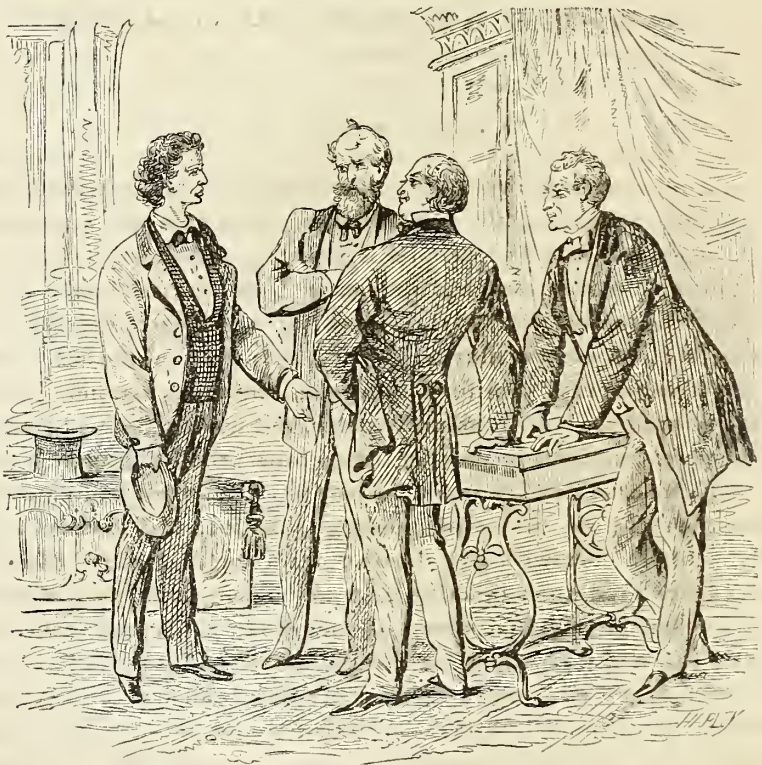
come celebrated, though its inventor appeared forgotten. Several ingenious mechanics, who had only heard or read of a machine for sewing, and others who had seen the HOWE machine, had turned their attention to inventing in the same direction, or to improving upon Mr. HOWE's devices. We have before us three handbills, which show that, in 1849, a sewing machine was carried about in Western New York and exhibited as a curiosity, at a charge of twelve and a half cents for admission. At Ithaca the following bill was posted about in May, 1849, a few weeks after the inventor's return from Europe:

"A GREAT CURIOSITY!!
THE
YANKEE SEWING MACHINE
IS NOW
EXHIBITING AT THIS PLACE
From 8 A. M. to 3 P. M."

The public were informed, by other bills, that this wonderful machine could make a pair of pantaloons in forty minutes, and do the work of six hands. The people of Ithaca, it appears, attended the exhibition in great numbers, and many ladies carried home specimens of the sewing, which they preserved as curiosities. But this was not all. Some machinists and others in Boston and elsewhere, were making sewing machines in a rude, imperfect manner, several of which had been sold to manufacturers, and were in daily operation.

The inventor, upon inspecting these crude products, saw that they all contained the devices which he had first combined and patented. Poor as he was, he was not disposed to submit to this infringement, and he began forthwith to prepare for war against the infringers. When he entered upon this litigation he was a journeyman machinist; his machine and his letters patent were in pawn three thousand miles away, and the patience, if not the purses of his friends was exhausted. When the contest ended a leading branch of the national industry was tributary to him. The first step was to get back from England that first machine and the document issued from the Patent Office. In the course of the summer of 1849 he contrived to raise the hundred dollars requisite for their deliverance, and the Hon. ANSOM BURLINGAME, who was going to London kindly undertook to hunt them up in the wilderness of Surrey. He found them, and sent them home in the autumn of the same year. The inventor wrote polite letters to the infringers, warning them to desist, and offering to sell

them licenses to continue. All but one of them, it appears, were disposed to acknowledge his rights and to accept his proposal. That one induced the others to resist, and nothing remained but to resort to the courts. Assisted by his father the inventor began a suit, but he was soon made aware that justice is a commodity much beyond the means of a journeyman mechanic. He tried to re-awaken the faith of GEORGE FISHER, and induce him to furnish the sinews of war, but GEORGE FISHER had had enough of the sewing machine; he would sell his half of the patent for what it had cost him, but he would advance no more money. Mr. HOWE then looked about for some one who would buy GEORGE FISHER'S share. He found three men who agreed to do this, and tried to do it, but could not raise the money.



Mr. Howe again in America, Encounters the Infringers of his Patent.

The person to whom he was finally indebted for the means of securing his rights was GEORGE W. BLISS, of Massachusetts, who was prevailed upon to buy Mr. FISHER'S share of the patent, and to advance the money needful for carrying on the suits. He did this only

as a speculation. He thought there might something in this new notion of sewing by machinery, and if there was, the machine must become universal and yield large revenues. This might be; he even thought it probable; still, so weak was his faith, that he consented to embark in the enterprise only on condition of his being secured against loss by a mortgage on the farm of the inventor's father. This generous parent—who is still living in Cambridge—came once more to the rescue, and thus secured his son's fortune. The suits went on; but, as they went on at the usual pace of patent cases, the inventor had abundant leisure to push his invention out of doors.

Towards the close of 1850 we find him in New York, superintending the construction of fourteen sewing machines at a shop in Gold street, adjoining which he had a small office, furnished with a five dollar desk and two fifty cent chairs. One of these machines was exhibited at the Fair in Castle Garden, in October, 1851, where, for the space of two weeks, it sewed gaiters, pantaloons and other work. Several of them were sold to a boot maker in Worcester, who used them for sewing boot legs with perfect success. Two or three others were daily operated in Broadway, to the satisfaction of the purchasers. We can say, therefore, of ELIAS HOWE, that besides inventing the sewing machine, and besides making the first machine with his own hands, he brought his invention to the point of its successful employment in manufacture.

While he was thus engaged events occurred which seriously threatened to rob him of all the benefit of his invention. The infringers of his patent were not men of large means nor of extraordinary energy, and they had no "case" whatever. There was the machine which ELIAS HOWE had made in 1845, there were his letters patent, and all the sewing machines then known to be in existence were essentially the same as his; but in August, 1850, a man became involved with the infringers who was of very different mettle from those steady going Yankees, and capable of carrying on a much more vigorous warfare than they; this was that ISAAC MERRITT SINGER who has since so often astonished the Fifth Avenue, and is now amusing Paris by the oddity and splendor of his equipages. He was then a poor and baffled adventurer. He had been an actor and manager of a theatre, and had tried his hand at various enterprises, none of which had been very successful. In 1850 he invented (as he has since sworn) a carving machine, and having obtained an order for one from Boston, he made it, and took it himself to Boston. In the shop in which he placed his carving machine he saw for the first

time, several sewing machines brought there for repairs. ORSON C. PHELPS, the proprietor of the shop (Mr. SINGER says), showed him one of these machines, and said to him that "if it could be improved so as to render it capable of doing a greater variety of work, it would be a good thing," and if Mr. SINGER could accomplish this, he could get more money from sewing than from carving machines; whereupon Mr. SINGER contemplated the apparatus, and at night meditated upon it with so much success that he was able in the morning to exhibit a drawing of an improved machine. This sketch (so he swears) contained three original devices, which to this day form part of the sewing machine made by the Singer Company. This sketch being approved, the next thing was to construct a model. Mr. SINGER having no money, the purchaser of his carving machine agreed to advance fifty dollars for the purpose, upon which Mr. SINGER flew at the work like a tiger.

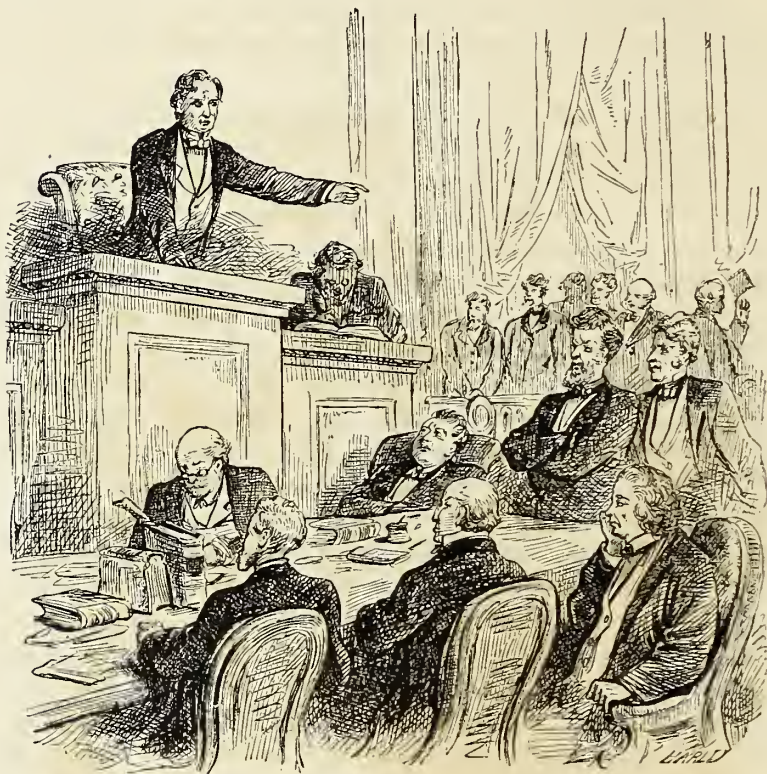
"I worked," he says, "day and night, sleeping but three or four hours out of the twenty-four, and eating generally but once a day, as I knew I must get a machine made for forty dollars or not get it at all. The machine was completed the night of the eleventh day from the day it was commenced. About nine o'clock that evening we got the parts of the machine together and commenced trying it. The first attempt to sew was unsuccessful, and the workmen, who were tired out with almost unremitting work, left me one by one, intimating that it was a failure. I continued trying the machine, with ZIEBER" (who furnished the forty dollars) "to hold the lamp for me, but, in the nervous condition to which I had been reduced by incessant work and anxiety, was unsuccessful in getting the machine to sew tight stitches. About midnight I started with ZIEBER to the hotel where I boarded. Upon the way we sat down on a pile of boards, and ZIEBER asked me if I had noticed that the loose loops of thread on the upper side of the cloth came from the needle. It then flashed upon me that I had forgotten to adjust the tension upon the needle thread. ZIEBER and I went back to the shop. I adjusted the tension, tried the machine, and sewed five stitches perfectly, when the thread broke. The perfection of those stitches satisfied me that the machine was a success, and I stopped work, went to the hotel and had a sound sleep. By three o'clock the next day I had the machine finished, and started with it to New York, where I employed Mr. CHARLES KELLER to get a patent for it."

Such was the introduction to the sewing machine of the man whose energy and audacity forced the machine upon an unbelieving

public. He borrowed a little money, and, forming a partnership with his Boston patron and the machinist in whose shop he had made his model, began the manufacture of the machines. Great and numerous were the difficulties which arose in his path, but one by one he overcame them all. He advertised, he travelled, he sent out agents, he procured the insertion of articles in the newspapers, he exhibited the machine at fairs in town and country. Several times he was upon the point of failure, but in the nick of time something always happened to save him, and year after year he advanced toward an assured success. We well remember his early efforts, when he had only the back part of a small store in Broadway and a little shop over a railroad depot; and we remember also the general incredulity with regard to the value of the machine with which his name was identified. Even after hearing him explain it at great length we were very far from expecting to see him, one day, riding to the Central Park in a French *diligence*, drawn by five horses paid for by the sewing machine.

Mr. SINGER had not been long in the business before he was reminded by ELIAS HOWE that he was infringing his patent of 5,346. The adventurer threw all his energy and his growing means into the contest against the original inventor. The great object of the infringing interest was to discover an earlier inventor than ELIAS HOWE. For this purpose the patent records of England, France and the United States were most diligently searched; encyclopædias were examined, and an attempt was even made to show that the Chinese had possessed a sewing machine for ages. Nothing, however, was discovered that would have made a plausible defence until Mr. SINGER joined the infringers. He ascertained that a New York mechanic, named WALTER HUNT, who had a small machine shop up a narrow alley in Abingdon Square, had made, or tried to make a sewing machine as early as 1832. WALTER HUNT was found. He *had* attempted to invent a sewing machine in 1832; and, what was more important, he had hit upon the shuttle as the means of forming the stitch. He said, too, that he had made a machine which did sew a little, but very imperfectly, and, after wearying himself with fruitless experiments, he had thrown it aside. Parts of this machine, after a great deal of trouble, were actually found among a quantity of rubbish in the garret of a house in Gold street. Here was a discovery! Could Mr. HUNT take these parts, all rusty and broken, into his shop, and complete the machine as originally made, so that it would sew? He thought he could. Urged on by the indefatigable SINGER, supplied by him with money, and stimulated by the prospect of fortune, WALTER HUNT tried hard and long to put his

machine together, and when he found that he could not, he employed an ingenious inventor to aid him in the work; but their united ingenuity was unequal to the performance of an impossibility—the machine could not be got to sew a seam. The fragments found in the garret did, indeed, demonstrate that in 1832 WALTER HUNT had been upon the track of the invention; but they also proved that he had given up the chase in despair long before coming up with the game.



Elias Howe in the Supreme Court of Massachusetts claiming his Rights.

And this the Courts have uniformly held. In the year 1854, after a long trial, Judge SPRAGUE, of Massachusetts, decided that "the plaintiff's patent is valid, and the defendant's machine is an infringement." The plaintiff was ELIAS HOWE; the real infringer, I. M. SINGER. Judge SPRAGUE further observed, that "there is no evidence in this case that leaves a shadow of doubt that, for all the benefits conferred upon the public by the introduction of a sewing machine the public are indebted to ELIAS HOWE."

This decision was made when nine years had elapsed since the

completion of the first machine, and when eight years of the term of the first patent had expired. The patent, however, even then, was so little productive, that the inventor, embarrassed as he was, was able, upon the death of his partner, Mr. Bliss, to buy his share of it. He thus became, for the first time, the sole proprietor of his patent; and this occurred just when it was about to yield a princely revenue. From a few hundreds a year his income rapidly increased, until it went beyond two hundred thousand dollars. He has received in all, up to the present time, about seventeen hundred thousand dollars. By the time



Elias Howe the complete victor.

the extension of the patent expires, September 10, 1867, the amount will not fall short of the round two millions. As Mr. Howe has devoted twenty-seven years of his life to the invention and development of the sewing machine, the public have compensated him at the rate of seventy-five thousand dollars a year. It has cost him, however, immense sums to defend his rights, and he is now very far from being the richest of the sewing machine kings. He has the inconvenient

reputation of being worth four millions, which is exactly ten times the value of his present estate.

So much for the inventor. In speaking of the *improvers* of the sewing machine, we know not how to be cautious enough; for scarcely anything can be said on that branch of the subject which some one has not an interest to deny. We the other day looked over the testimony taken in one of the suits which Messrs. GROVER & BAKER have had to sustain in defence of their well known "stitch." The testimony in that single case fills two immense volumes, containing three thousand five hundred and seventy-five pages. At the WHEELER & WILSON establishment on Broadway there is a library of similar volumes, resembling in appearance a quantity of London and Paris Directories. The SINGER Company are equally blessed with sewing machine literature, and Mr. HOWE has chests full of it. We learn from these volumes that there is no useful device connected with the apparatus the invention of which is not claimed by more than one person. And no wonder. If to-day the ingenious reader could invent the slightest real improvement to the sewing machine, so real that a machine having it would possess an obvious advantage over all machines that had it not, and he should sell the right to use that improvement at so low a rate as fifty cents for each machine, he would find himself in the enjoyment of an income of one hundred thousand dollars per annum. The consequence is, that the number of patents already issued in the United States for sewing machines and improvements in sewing machines, is about nine hundred. Perhaps thirty of these patents are valuable, but the great improvements are not more than ten in number, and most of those were made in the infancy of the machine.

By general consent of the able men who are now conducting the sewing machine business (including ELIAS HOWE), the highest place in the list of improvers is assigned to ALLEN B. WILSON. This most ingenious gentleman completed a practical sewing machine early in 1849, without ever having seen one, and without having any knowledge of the devices of ELIAS HOWE, who was then buried alive in London. Mr. WILSON, at the time, was a very young journeyman cabinet maker, living in Pittsfield, Massachusetts. After that desperate contest with difficulty which inventors usually experience he procured a patent for his machine, improved it, and formed a connection with a young carriage maker of his acquaintance, NATHANIEL WHEELER, who had some capital, and thus was founded the house of WHEELER & WILSON. These gentlemen were honest enough in opposing the claim of ELIAS HOWE, since Mr. WILSON knew himself to be

an original inventor, and he employed devices not to be found in Mr. HOWE'S machine. Instead of a shuttle, he used a "rotating hook"—a device as ingenious as any in mechanism. The "four-motion feed," too was another of Mr. WILSON'S masterly inventions, sufficient of itself to stamp him an inventor of genius. Nothing, therefore, was more natural than that MESSRS. WHEELER & WILSON should regard Mr. HOWE'S charge of infringement with astonishment and indignation, and join in the contest against him.

MESSRS. GROVER & BAKER were early in the field. WILLIAM O. GROVER was a Boston tailor, whose attention was directed to the sewing machine soon after Mr. HOWE'S return from Europe. It was he who, after numberless trials, invented the devices by which the "GROVER & BAKER" stitch is formed.

When, by the decision of the courts, all the makers had become tributary to ELIAS HOWE, paying him a certain sum for each machine made, then a most violent warfare broke out among the leading houses—SINGER & COMPANY, WHEELER & WILSON, GROVER & BAKER—each accusing the others concerned of infringement. At Albany, in 1856, these causes were to be tried, and parties saw before them a good three months' work in court. By a lucky chance one member of this happy family had not entirely lost his temper, and was still in some degree capable of using his intellect. It occurred to this wise head that no matter who invented first, or who second, there were then assembled at Albany the men who, among them, held patents which controlled the whole business of making sewing machines, and that it would be infinitely better for them to combine and control than to contend with and devour one another. They all came into this opinion, and thus was formed the "Combination" of which such terrible things are uttered by the surreptitious makers of sewing machines. ELIAS HOWE, who is the best tempered man in the world, and only too easy in matters pecuniary, had the complaisance to join this confederation, only insisting that at least twenty-four licenses should be issued by it, so as to prevent the manufacture from sinking into a monopoly. By the terms of this agreement Mr. HOWE was to receive five dollars upon every machine sold in the United States, and one dollar upon each one exported. The other parties agreed to sell licenses to use their various devices, or any of them, at the rate of fifteen dollars for each machine; but no license was to be granted without the consent of all the parties. It was further agreed that part of the license fees received should be reserved as a fund for the prosecution of infringers. This agreement remained unchanged until the renewal of

Mr. HOWE's patent in 1860, when his fee was reduced from five dollars to one dollar, and that of the combination from fifteen dollars to seven. That is to say, every sewing machine honestly made, pays ELIAS HOWE one dollar; and every sewing machine made, which includes any device or devices, the patent for which is held by any other member of the Combination, pays seven dollars to the Combination. Of this seven dollars Mr. HOWE receives his one, and the other six go into the fund for the defence of the patents against infringers.

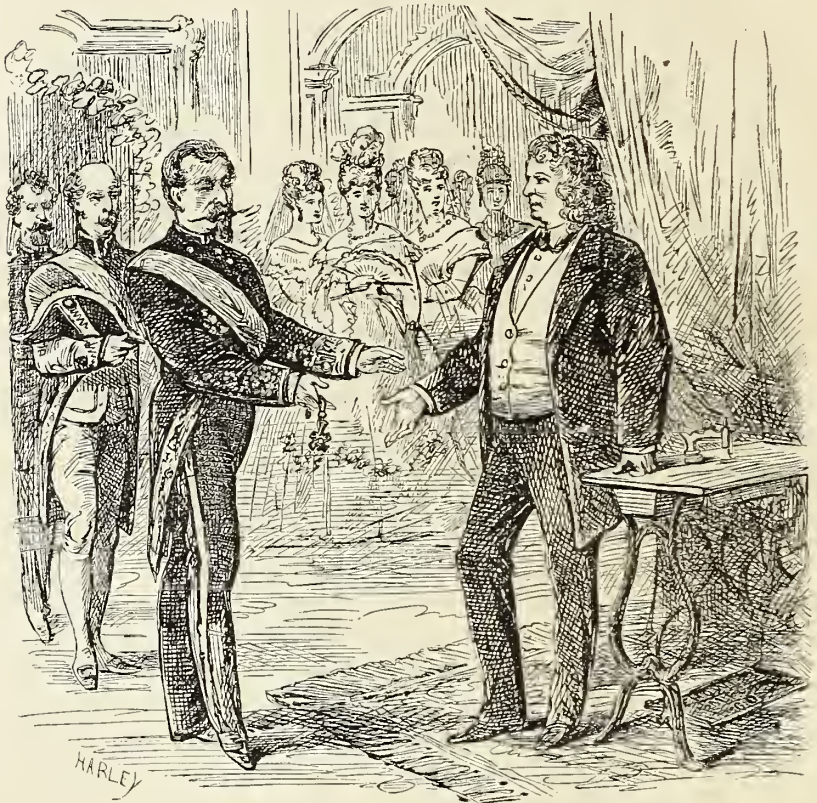
For example, take the WILCOX & GIBBS machine—the only one, as far as we know, which was not invented by a Yankee, or in Yankee land. Twelve years ago, Mr. JAMES E. A. GIBBS, a Virginia farmer, saw in the *Scientific American* a picture of a sewing machine. Being a man of a decided turn for mechanics he examined the drawing with great attention; but as it exhibited only the upper part of the machine, he could form no idea of the contrivance underneath by which the stitch was formed. The working of the apparatus was, however, very plain, down to the moment when the needle perforates the cloth, and he fell in the habit of musing upon the course of events after the point of the needle was lost to view. The result of his cogitations, aided by infinite whittling, was the ingenious little revolving hook which constitutes the peculiarity of the WILCOX & GIBBS machine. But that machine, besides employing Mr. GIBBS's invention, uses the feeding apparatus of ALLEN B. WILSON and the eye-pointed needle of ELIAS HOWE. It is therefore tributary to the Combination, and pays it seven dollars for each machine. A similar history could be related of the "Florence," the "Weed," the "Elliptic," the "Empire," and others. All these machines are worth examination by those who are curious in mechanical devices.

The business of making and selling sewing machines, which was not fairly started before 1856, has attained a truly wonderful development. Twenty-seven firms or companies have been engaged in it at one time, a few of which have lately withdrawn, leaving about twenty still in the business. One of these has twenty-four stores of its own in the large cities of the world, besides a much larger number of local agents. Another boasts that there are thirty-nine cities on this planet where its machines can be bought at all times. We can ourselves bear witness that, in such cities as Cincinnati, St. Louis and Chicago, each of the well known makers has a spacious and elegant establishment, with all the appurtenances to which we are accustomed in New York. In Australia one of the New York companies, at least, has an establishment of its own.

Gentlemen best acquainted with the business compute that the whole number of sewing machines made in the United States, up to the close of the year 1866, was about seven hundred and fifty thousand. During the quarter ending December 10, 1866, the number of machines made by licensed companies, as reported by them to ELIAS HOWE, was 52,219! This is above the rate of two hundred thousand per annum. Mr. HOWE is of opinion that about half as many more are produced by unlicensed makers, including the Yankees, who, driven from the United States by the Combination, have set up their factories on the other side of the Canada line. If his conjecture is correct, we are now producing the astounding and almost incredible number of one thousand sewing machines every working day, at an average cost to the purchaser of sixty dollars each. The world, however, is a very large place, and America still supplies it with most of its sewing machines. When we visit single establishments in New England which employ five hundred machines, when we learn that the shirt makers of one city, Troy, are now running more than three thousand of them, and when we consider that there are in the United States six millions of families, most of whom mean to have a sewing machine when they can afford it, we can believe that even so many as a thousand a day may be absorbed. About one-fifth of all the machines made in the United States are exported to foreign countries. ELIAS HOWE, JR., WHEELER & WILSON, GROVER & BAKER, SINGER & COMPANY, WILCOX & GIBBS, the FLORENCE and others, are familiar names in St. Petersburg, Paris, London, Berlin, Vienna, Madrid, Melbourne, Mexico, Rio Janeiro, Havana, Valparaiso, Vancouver's Island, and wherever else in the world many stitches are taken. Foreigners can no more make a Yankee sewing machine than they can make a Yankee clock. They have not the machinery—as curious as the machine itself—by which each part of the apparatus is made at the minimum of expense, and with perfect certainty of excellence. To found a sewing machine manufactory in Europe which could compete with those of America, would involve an expenditure of two millions of dollars, and the expatriation of several of our American foremen. It is only upon a great scale that machines can be made well or profitably.

By means of the various improvements and attachments the sewing machine now performs nearly all that the needle ever did. It seams, hems, tucks, binds, stitches, quilts, gathers, fells, braids, and embroiders and makes button-holes. It is used in the manufacture of every garment worn by man, woman or child. Firemen's caps, the en-

gine hose which firemen use, sole leather trunks, harness, carriage curtains and linings, buffalo robes, horse blankets, horse collars, powder flasks, mail bags, sails, awnings, whips, saddles, corsets, hats, caps, valises, pocket-books, trusses, suspenders, are among the articles made by its assistance; but it is employed quite as usefully in making kid gloves, parasols, and the most delicate article of ladies' attire.



Elias Howe receiving the highest honors France can confer.

Some of our readers, perhaps, witnessed the show, in New York, of the shoes, gaiters, and ladies' boots made for the Paris Exhibition. They were of all degrees of delicacy, from the stout Balmoral to the boot of kid, satin or velvet; and every kind of stitch had been employed in their manufacture. Some of the stitches were so fine that they could not be distinctly seen without a magnifying glass, and some were as coarse and strong as those of men's boots. The special wonder of this display was that *every* stitch in every one of those

beautiful shoes was executed by the machine. Mr. E. C. BURT, who made this splendid contribution to the Exhibition, assured us, and will assure the universe in general in Paris, that all this variety of elegant and durable work was performed on the "Howe Sewing Machine." Upon ordinary boots and shoes the machine has long been employed, but it is only recently that any one has attempted to apply it to the manufacture of those dainty things which ladies wear upon their feet when they go forth, armed *cap-a-pie* for conquest. A similar change has occurred in other branches of manufacture. As operators have increased in skill, and as the special capabilities of the different machines have been better understood, finer kinds of work have been done upon them than used to be thought possible. Some young ladies have developed a kind of genius for the sewing machine; the apparatus has fascinated them; they execute marvels upon it, as Gottschalk did upon the piano. One of the most recent applications of the machine is to the sewing of straw hats and bonnets. A Yankee in Connecticut has invented attachments by which the finest braids are sewn into bonnets of any form.

Attempts have been made to estimate the value, in money, of the sewing machine to the people of the United States. Professor RENWICK, who has made the machine a particular study, expressed the opinion seven years ago, on oath, that the saving in labor then amounted to nineteen millions of dollars per annum. Messrs. WHEELER & WILSON have published an estimate which indicates that the total value of the labor performed by the sewing machine, in 1863, was three hundred and forty-two millions of dollars. A good hand sewer averages thirty-five stitches per minute; the fastest machine, on some kinds of work, performs three thousand a minute. There are in a good shirt 20,620 stitches—what a saving to do them at machine speed! We glean from the volumes of testimony before us a few similar facts. The stitching of a man's hat by hand requires fifteen minutes; by machine one minute. One girl can do the sewing by machine of as many boys' caps as ten men can do by hand. In fine clothing for men the saving is, of course, not so great. Messrs. BROOKS BROTHERS, of New York, say that the making of a first-rate overcoat by hand requires six days steady sewing; by machine, three days. In the general work of a tailor the machine saves a journeyman about four hours in twelve. Carriage trimmers testify that one machine and three hands are equivalent to eleven hands. In the truss and bandage business, which is one of very great extent and importance, one machine is equal to ten women. In the manufacture of

bags for flour, salt and meal, of which the city of New York produces two millions of dollars' worth per annum, a machine does the work of nine girls. In mere hemming, on a machine fitted expressly for the purpose, one machine does the work of fifty girls.

Yet where is the woman who can say that her sewing is less a tax upon her time and strength than it was before the sewing machine came in? But this is not the machine's fault; it is the fault of human nature. As soon as lovely woman discovers that she can set ten stitches in the time that one used to require, a fury seizes her to put ten times as many stitches in every garment as she formerly did. Tailors and seamstresses, not content with sewing the seams of garments, must needs cover them with figures executed by "stitching." And thus it is that man never is, but always to be, blest. If with one part of his brain he invents a labor-saving apparatus, the other lobes immediately create as much new labor as the apparatus saves. But it is this chase of Desire after Ability which keeps the world moving, and tends always to equalize the lot of men. The sewing machine is one of the means by which the industrious laborer is as well clad as any millionaire need be, and by which working girls are enabled safely to gratify their woman's instinct of decoration.

ELIAS HOWE can justly claim that it was his invention which enabled the United States to put and keep a million of men in the field during the war. Those countless garments, tents, haversacks, cartridge-boxes, shoes, blankets, sails—how could they have been produced without the sewing machine? One day during the war, at three o'clock in the afternoon, an order from the War Department reached New York by telegraph for fifty thousand sand bags—such as are used in field works. By two o'clock the next afternoon the bags had been made, packed, shipped, and started southward.

In the early days of the sewing machine it was not supposed that it would ever come into general use in families. The great cost of the machine, and the supposed difficulty of learning to use it, were considered fatal obstacles to its general introduction into households. The price has now been reduced to sixty-five dollars for the cheapest good machines; and it has been found that an intelligent woman can learn to sew with it in an hour. An average seamstress becomes proficient in the use of it in a month. For some time past, therefore, the great object of the celebrated makers is to produce the best family machine. This is the point of rivalry among them.

A lady, who leaves her home, after a breakfast consultation with her husband, and goes forth to select a family sewing machine, has

undertaken an expedition which promises nothing but pleasure, but it does not perform its promise. The sewing machine establishments in Broadway are numerous and splendid. She pauses before a magnificent marble store, with windows formed of single panes of plate glass, in one of which are sewing machines, brilliant with polished steel, silver plate and rosewood, and in the other are beautiful garments, covered with miraculous stitching, executed by those pretty parlor ornaments. Yielding to these allurements she enters a grand saloon, a hundred feet long, extending back to another street, and covered with Wilton carpet, of better quality, probably, than that which she treads in her own parlor. Perhaps the walls and ceilings are frescoed; and if they are not, they are richly papered and painted. Sewing machines in long rows, not too close together for convenient moving about, agreeably dot the whole surface of the apartment, as far as the eye can penetrate the gloom of the distance. Along the wall, at the farther end of the room, she will discover, by and by, a row of enclosed desks, like those of a bank, each desk being a small apartment, as elegant and commodious as taste and money can make it. These are for the dignitaries of the Company—the president, the treasurer, the cashier, the general agent, the advertising clerk. Here and there a young lady may be seen operating one of the machines, in a graceful attitude, and with such perfect ease as to dispel the fears of a purchaser most distrustful of her powers. The rapid and yet not noisy click of the machine is cheering, and seems the appropriate music of the place. And this grand hall is only one of many apartments. The basement, and the cellar below the basement, each as large as the store, are occupied as depositories, repairing shops, packing rooms; while in the story above the store may be found superb rooms, wherein ladies who have bought a machine receive instruction in the art of using it—attending daily, if they choose, until they have become proficient in hemming, sewing, braiding, making button-holes, and in all the other varieties of needlework.

The clerk, who advances to wait upon the lady, soon learns her errand and discovers her ignorance; indeed, she frankly avows her ignorance. She has come out, she artlessly says, in pursuit of knowledge; she desires to ascertain which is the best sewing machine in existence for family use. Long practice has taught an intelligent and ambitious young man how to deal with cases of this kind. He does, in his inmost soul, *believe* that the sewing machines made by the company he serves are the very best in the world, *especially* for family use; but he feels the delicacy of his situation. "Of course, madam, we are

interested parties, and it would be no more than natural that we should represent our machines to be the best in the market. But it is no part of the policy of our company to disparage those made by our neighbors. We are on friendly terms with them, and we are ready to admit that some of them do make machines which for some purposes are excellent. But when it comes to machines for *family* use, which is our specialty, why then, madam, we cannot hesitate. Upon *that* point there can be but one opinion. Nevertheless, we do not ask ladies to believe what we say—we *show* them what our machine does, and let *it* speak for itself." Conciliated by such modesty and candor, the lady watches with pleasure and admiration, while one dexterous young lady runs up a seam, and another hems a sheet, and another does a little quilting, and another makes a button-hole in half a minute. The lady herself takes a seat at a machine, and is astonished to find herself sewing at a rattling pace, "without any previous instruction."

She is convinced. She is perfectly satisfied. She sympathizes with the tender compassion expressed by the clerk for the great number of ladies who have been deluded into buying other machines, which, after distracting a household for many months, are now discarded and consigned to the garret. "You see madam, advertising can force a machine on the market; but, in the long run, real merit overcomes all opposition." She assents with her whole soul to this proposition. It accords with what she has observed of human life. She has even made the remark herself.

The impulse is strong within her to buy one of these peerless machines on the spot, and she has not the slightest doubt that she shall do so in the course of the day. But it was agreed between her husband and herself that she should examine all before purchasing; and so, in obedience to a stern sense of duty, she resolves to go through the form—the mere form—of looking at other machines. She feels that she must be able to *say* that she has fulfilled her compact.

In another spacious and elegant saloon another accomplished clerk claims for another machine precisely the same excellencies, which other young ladies proceed to exhibit. If she ventures timidly to intimate that she has been looking at a machine elsewhere, the accomplished clerk knows well how to proceed. He discourses at large upon the merits of all the machines. He exhibits all the varieties of needles employed in them, and expatiates upon the very complicated machinery used to propel those needles. "Your own common sense must tell you, madam, that the simpler a piece of

mechanism is, the less liable it is to get out of order, and the more easily it is worked by an inexperienced person. Now, madam, our machine contains eleven pieces less than any other in the market; and your own common sense must tell you that every piece added to a machine makes it more complicated, and more easily disarranged. Don't misunderstand me, madam, I do not say the machine you examined on the other side of the street was not a very good one in its day; but some people, you know, when they have a pretty good thing, are satisfied, and don't keep up with the times. However, we never speak ill of our neighbors. We simply show what our machine is, and what it can do. Your own common sense must decide."

And so he goes on, until the lady shudders to think what a narrow escape she has made from falling a victim to the wiles of the brilliant young man who first entertained her. By the time she has gone the rounds of the ten or twelve sewing machine establishments in Broadway, between Canal street and Union Square, she is in a state of mind to buy a wheel-barrow in order to end the agonizing struggle.

It is but just to add that all the well known makers have seized the truth, that the only way in which a business permanently great can be created, is by serving the public with systematic and scrupulous fidelity. Nothing can exceed the care taken by them all that no machine shall leave the factory which shall not be, as long as it lasts, an advertisement for the company whose name it bears.

WHAT ADVANTAGES

HAS

The "Elias Howe" Machine

OVER OTHERS?

First.—The public know it to be durable. A conclusive evidence is, twenty years have not placed second-hand "Howe" machines in the market. It cannot be said of any other machine.

Second.—It contains the material for its own repair.

Third.—It has less wearing points than any other.

Fourth.—It draws up a stitch as you do by hand; others do not.

Fifth.—You have perfect control over both threads; others have not.

Sixth.—It gives off thread in proportion to the thickness of fabric sewed, thereby avoiding slow motion over seams, dropping stitches and breaking of needles—a great objection to all other machines.

Seventh.—It sews a tight seam in cassimere, burying the thread on either side, and then a tissue paper, without change of tension.

Eighth.—The presser foot is easily swung out of the way when you set a needle or put under work. It is not so with any other.

Ninth.—Many new machine companies have had their rise and fall—their machines once popular now scarcely known—others have made radical changes in order to exist; while the Howe Machine Company have adhered to the opinion of "ELIAS HOWE, Master of Mechanics," ("The machine is mechanically correct; does not change,") built addition after addition to their factory, and to-day cannot supply the demand, although turning out over six hundred machines a day—more than a machine a minute.

QUALITIES WHICH ARE PECULIAR TO

AND

RECOMMEND

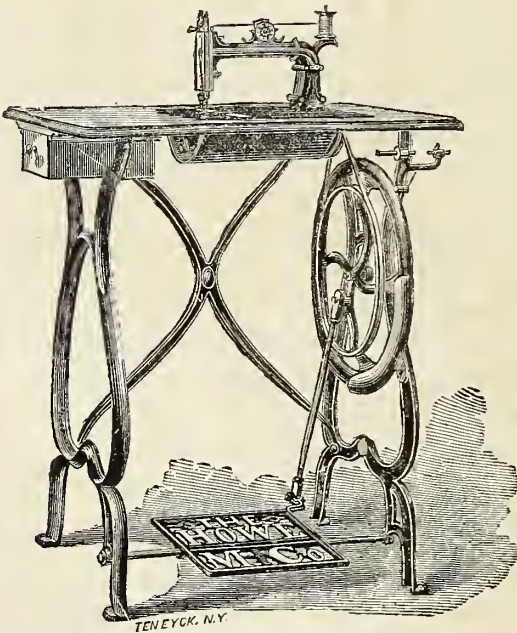
The Howe Sewing Machine.

- 1.—Beauty and excellence of stitch alike on both sides of the fabric sewed.
- 2.—Strength, beauty and durability of seam that will neither rip nor ravel.
- 3.—Complete control over both threads.
- 4.—An entirely new rotary tension for the upper thread, which contributes so much to that beauty and uniformity of stitch for which the "Howe Machine" is so celebrated.
- 5.—A perfectly uniform tension in the shuttle, which does not vary from a full to an empty bobbin—an objection so common to other machines.
- 6.—An automatic self-regulating take-up, that prevents missing of stitches in crossing heavy seams.
- 7.—Short, straight and strong needles, not liable to break in passing over heavy seams, as do the curved needles of other machines.
- 8.—Finer needles for the same thread than any other machine.
- 9.—Sewing equally well with any kind of thread.
- 10.—Economy of thread beyond that of any other machine.
- 11.—A Hemmer that will make any width of Hem or Fell.
- 12.—Braiding the most complicated patterns with any width or kind of Braid.
- 13.—A Quilter that will adjust itself to any thickness of material.
- 14.—Tucking any fabric without injury or pucker.
- 15.—A Corder so constructed as to cord around very short curves, even to square corners.
- 16.—Sewing the finest fabric without injury or pucker, and the heaviest materials with the greatest ease.
- 17.—Compactness, simplicity and durability.
- 18.—Ease of operation and management.

THE HOWE

IMPROVED

Family Sewing Machines.



No. 1.

LETTER A MACHINE.

(ORNAMENTED)

On Oiled Walnut Table.

PRICE, Plain, \$65 00
 Pearled and Plated, 70 00
 Extra Pearled and
 Plated, 75 00

This machine is capable of the same range and variety of work as the higher priced machines.

Many of the Sewing Machine Companies offer a machine poorly finished at from five to ten dollars lower in price than any on our list. The HOWE COMPANY do not pretend to make CHEAP MACHINES. Every machine represented by this Circular is equally well finished (except in external decoration), has the same attachments, and is capable of the same RANGE AND VARIETY OF WORK.

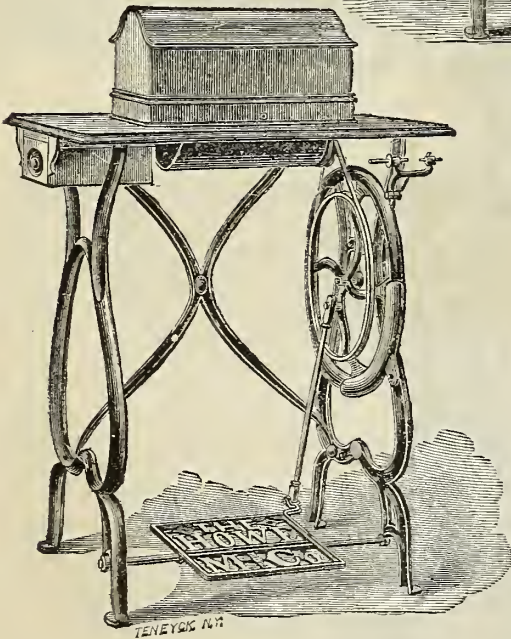
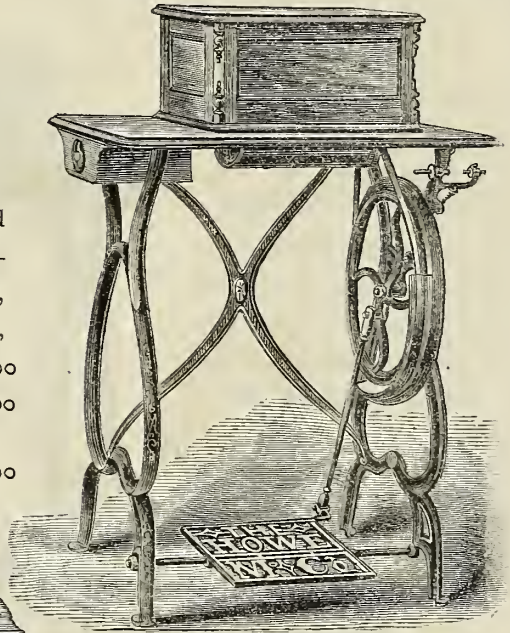
THE HOWE

Improved Family Sewing Machines.

No. 2.

PANEL COVER.

Ornamental Machine and
Iron Stand, Black Wal-
nut Table and Drawer,
Paneled Cover with Lock,
etc., etc.,..... \$70 00
Pearled and Plated,.. 75 00
Extra Pearled and
Plated, 80 00



No. 3.

GOTHIC COVER.

Ornamented Machine and
Iron Stand, Black Wal-
nut Table and Drawer,
Gothic Cover, with
Lock, etc., \$75 00
Pearled and Plated, 80 00
Extra Pearled and
Plated, 85 00

THE HOWE

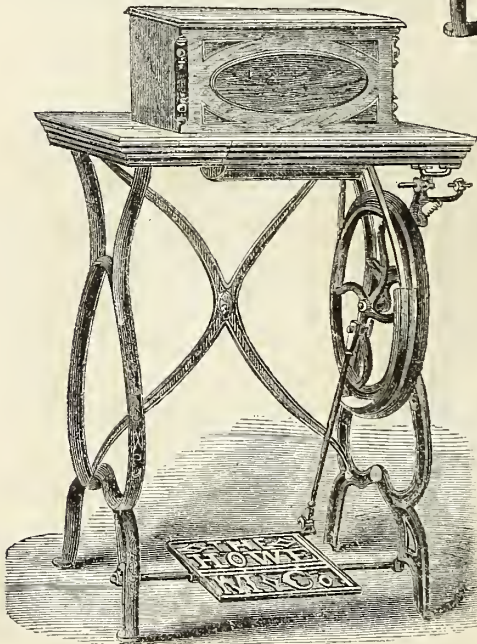
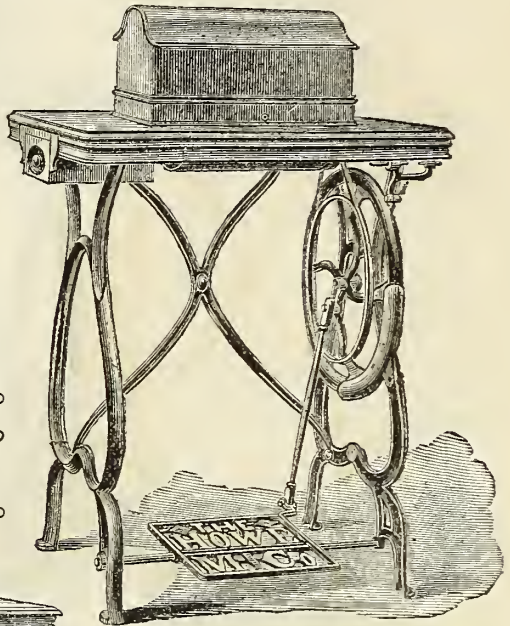
Improved Family Sewing Machines.

No. 4.

GOTHIC COVER.

BORDER TOP.

Ornamented Machine and
Iron Stand, Black Walnut
Table and Drawer, Gothic
Cover, with Lock, Border
Top Table, etc., ... \$70 00
Pearled and Plated, .. 75 00
Extra Pearled and
Plated, 80 00



No. 5.

LETTER A MACHINE.

(ORNAMENTED.)

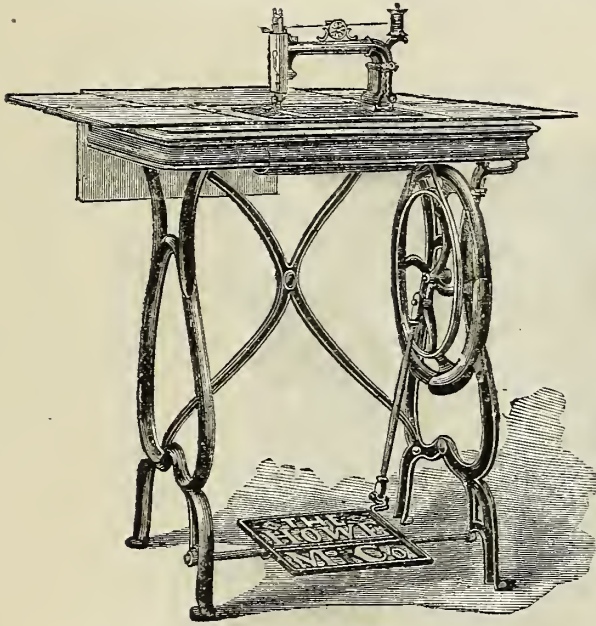
In Black Walnut (oiled),
Folding Cover, ... \$85 00
In Black Walnut
(polished), Folding
Cover, 90 00

PEARLED AND SILVER PLATED A MACHINE.

In Black Walnut (oiled),
Folding Cover, ... \$90 00
In Black Walnut
(polished), Folding
Cover, 95 00

THE HOWE

Improved Family Sewing Machines.

**No. 6.**

This cut represents the "Folding Cover" as it appears when open, and forming table for the convenience of the operator. In figure 5 the Folding Cover is represented as shut, and thus completely enclosing and protecting the working parts of the machine. A most novel and ingenious arrangement of a table and cover combined.

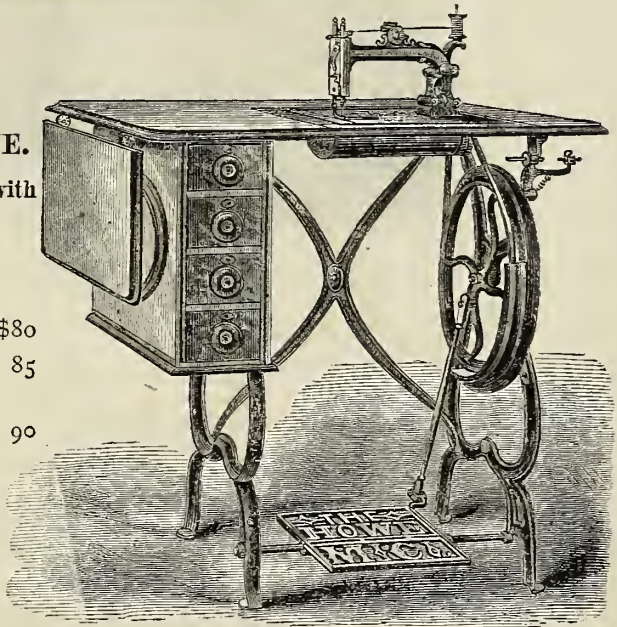
No. 7.**LETTER A MACHINE.**

Drop Leaf and Drawers, with
Box Top.

BLACK WALNUT.

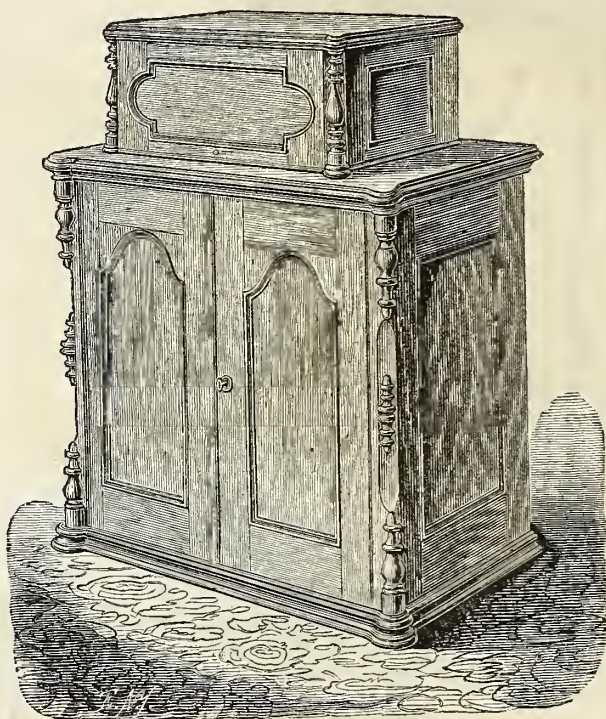
PRICES.

Ornamented Machine, \$80
Pearled and Plated,.. 85
Extra Pearled and
Plated,..... 90



THE HOWE
Improved Family Sewing Machines.

No. 8.



CABINET.

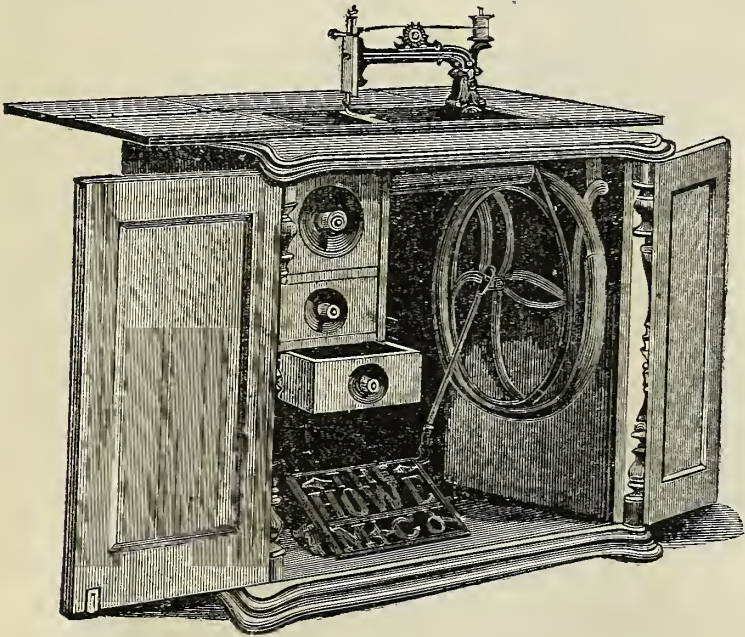
Prices from \$100 to \$200.

We furnish Cabinets similar to the above, with Box or Folding Tops, with Patent Doors, in Black Walnut, Mahogany, Rosewood, Maple, Chestnut, &c.

THE HOWE

Improved Family Sewing Machines.

No. 9.



FOLDING TOP CABINET CASE.

The above cut represents the Cabinet Case and Folding Cover, as the same appears when thrown open for use. These cases are most beautifully finished and conveniently arranged. In figure 8 the Folding Cover is represented as shut, resembling the Box Top, and thus completely enclosing and protecting the working parts of the machine.

Price List of Folding Cover Cabinet Case.

LETTER A MACHINE.

In Black Walnut (oiled),	\$110 00
In Black Walnut or Mahogany (polished),	115 00

LETTER A MACHINE, PEARLED AND SILVER PLATED.

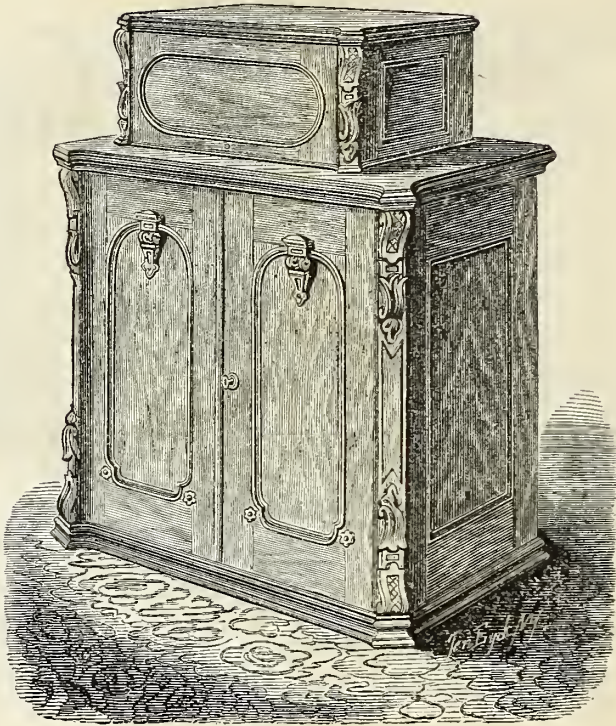
In Black Walnut (oiled),	115 00
In Black Walnut or Mahogany (polished),	120 00

LETTER A MACHINE, EXTRA PEARLED AND SILVER PLATED.

In Black Walnut (oiled),	125 00
In Black Walnut or Mahogany (polished),	130 00

THE HOWE
Improved Family Sewing Machines.

No. 10.



LETTER A MACHINE,

PEARLED AND PLATED.

In Full Case, Folding Top, Polished Black Walnut, extra finish, and lined with Satin Wood. Price,..... \$180 00

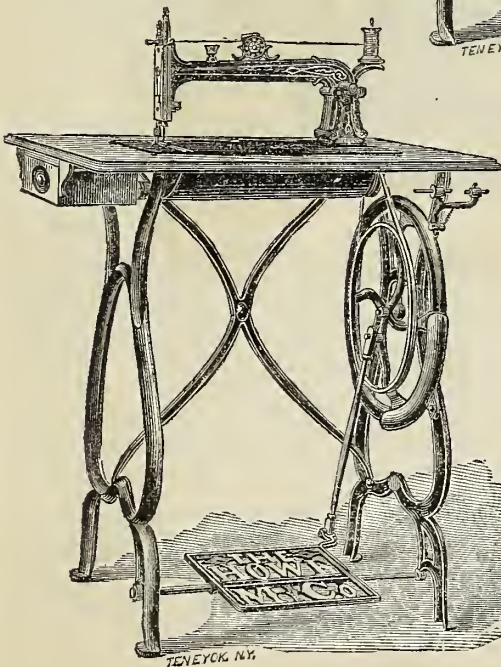
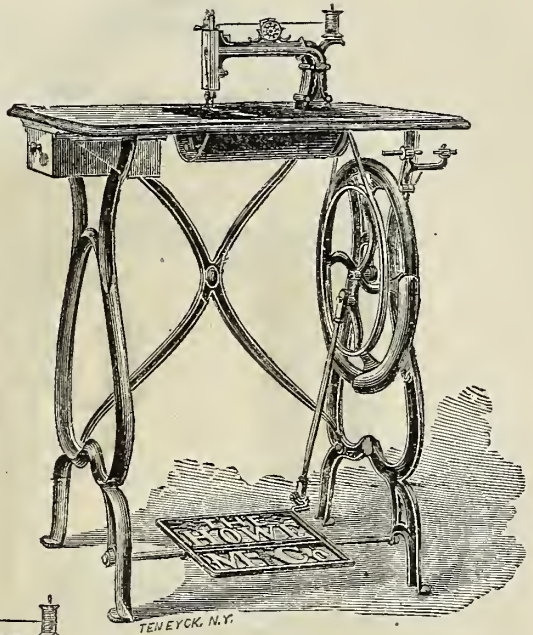
THE HOWE

Improved Family Sewing Machines.

LETTER B MACHINE.

Letter B Machine is used extensively by Tailors, sewing with equal facility on heavy Beaver Cloth and Marseilles, Duck, Linen and Alpaca; it is also used by Shoe Manufactories making a most beautiful stitch on English and French Lasting and Patent Leather.

Price, complete, \$75 00



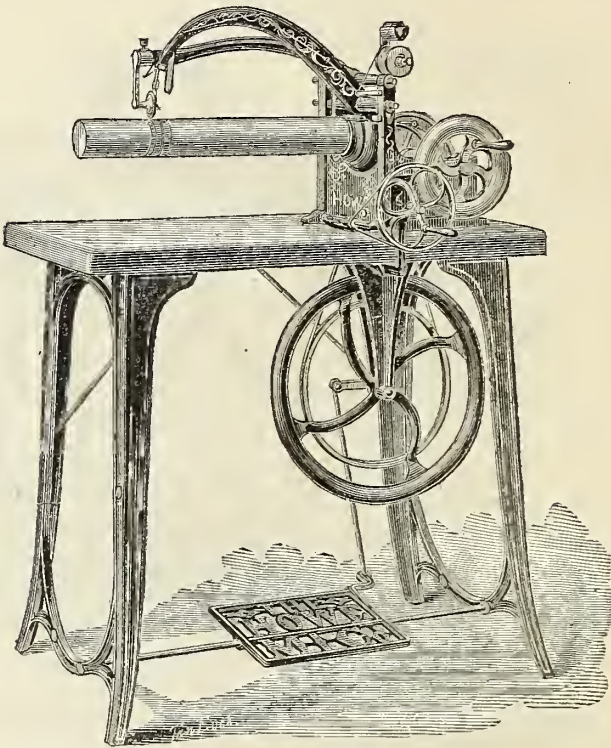
LETTER C MACHINE.

Letter C is recommended for the heavier grades of work, being much larger than the B Machine. It is universally acknowledged to be superior to all others for Boot and Shoe making, Carriage Trimmers, Harness making, &c. It has two Pressers with each machine—one a wheel for Leather, the other a flat Presser for Cloth.

Price, complete, \$90 00

THE HOWE

Improved Family Sewing Machines.



LETTER E, OR CYLINDER MACHINE.

Price, complete,..... \$155 00

This machine has peculiarities which particularly adapt it to first-class Leather work. The construction of the stitch made by this machine renders it more durable, in every respect, than that made by any other shuttle or lock stitch machine, and preferable to stitching done by hand. The movements are as near those performed by hand as it is possible for machinery to accomplish. The needle is much smaller, and carries a much larger thread than any other needle used, draws the stitch firmly into the material, and makes it more regular than when done by the best hand stitchers. The needles used are nearer to the stitcher's awl than any before applied to stitching, and the stitching can be made to appear better and more regular than is possible otherwise.

The shuttle is the largest used in any machine, and carries a much larger quantity of thread, which obviates somewhat the necessity of stopping in the middle of a piece of work. The tensions upon the thread are perfectly under the control of the operator, and can be made to present the stitch alike on both sides of the material, or otherwise, as may be desired.

The form of the machine being cylindrical, is particularly adapted to patent leather boot and shoe fitting, also harness and saddlery work, where the form of the work must be strained while stitching; and, in fact, for any peculiarly formed work to be stitched, this Cylindrical Machine is the most appropriate.

It is also adapted to carriage trimming, traveling bag and satchel making, from the fact that it carries a larger quantity of coarse thread, and the form admits of stitching part of the work where other machines will not.

THE HOWE

Improved Family Sewing Machines.



If it be inconvenient for the purchaser to visit our office, or that of our Agent in the District in which the purchaser may reside, the order may be forwarded by mail, and will be as faithfully filled as if the selection had been made personally. Machines are forwarded to any part of the country, and full instructions sent—which will enable the most inexperienced to operate them. Cash or draft must accompany the order. Machines may be sent, however, payment to be collected on delivery, if satisfactory assurance is given that it will then be made. Our interest not being second to that of purchasers of machines in their successful operation, we hold ourselves in readiness to render any necessary and practicable assistance, by correspondence or otherwise, for this purpose; and, for faithfulness in this respect, reference is made to the tens of thousands now using these machines.



THE COMMITTEE of the AMERICAN INSTITUTE, New York, appointed to examine Sewing Machines, arranged them according to the *stitch* made, and the purpose to which the machine is to be applied, in four classes—1st, 2d, 3d and 4th—a classification indicating the general order of merit and importance.

Class 1st includes the *Shuttle or Howe Lock Stitch Machines*, for family use, and for manufacturers in the same range of purpose and material. The Committee has assigned this class the highest rank, on account of “elasticity, permanence, beauty, and general desirableness of the stitching when done,” and the wide range of its application.

Class 2d includes the *Shuttle or Howe Lock Stitch Machines*, for heavy manufacturing purposes.

Class 3d includes the *Double Chain Stitch Machines*. The Grover & Baker Machine is placed at the head of this class. The Committee objects to the stitch made by this machine, inasmuch as it consumes more thread than any other stitch, and leaves a ridge projecting from one side of the seam, which must usually impair the durability of the seam, and often the durability of the garments or other articles so stitched—though some of the machines making this stitch can be used very successfully for embroidery purposes.

Class 4th includes the *Single Thread, Tambour or Chain Stitch Machines* (known as the Willcox & Gibbs). The tendency of the stitch to ravel the Committee considers an objection so serious, that they refuse to recommend the machines making it for any premium.

MACHINE

Silk, Cotton and Thread.

Having long felt a necessity for supplying not only the users of our *Machines*, but the public generally with the best and most reliable quality of *Machine Silk*, and knowing that the system of selling by weight has been productive of much evil, we have adopted the system of graduating our sizes accurately, and giving the same number of yards on each spool of the same size, or letter of silk, irrespective of weight.

Weighting Silk so heavily in the process of dyeing as to injure the quality, has been practiced to such an extent by manufacturers, that it has been difficult, if not impossible, for purchasers to know what they were buying.

Moreover, as *length, strength and a proper and uniform size* rather than weight are the qualities required, it would seem proper that this article should no longer be sold by *weight*.

Each spool of Silk, manufactured expressly for us, bears our trade mark; and the *length*, as printed thereon, is guaranteed.

It is, of course, to our interest, as well as the interest of our purchasers, that those who use our *Machines* should be supplied with *Machine Silk* of superior quality, and it is with a view of furnishing an honest article at a fair price, that we have become Silk dealers on a large scale. If others offer to sell *Silk* at less than our prices, purchasers will probably find it inferior in quality, or deficient in quantity, or both.

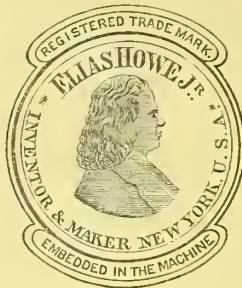
We would also call attention to our stocks of Cotton and Linen Threads, which will be found to be of the first quality and low priced.

All of our Branch Offices and Agents throughout the country keep a full stock of the above articles, as well as Needles, Duplicate Parts of *Machines*, Oil and all Attachments, and we would advise all those using our *Machines* to purchase their supplies at our offices.

THE HOWE MACHINE CO.

OCTOBER, 1872.

THE ORIGINAL Howe Sewing Machine.



MANUFACTURED BY

THE HOWE MACHINE COMPANY,

ELIAS HOWE, Jr.

DEPOT, 699 BROADWAY,

Corner Fourth Street.

NEW YORK.

PRINCIPAL OFFICES:

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LIVERPOOL,.....	67 Sand Street.	MILWAUKEE, Wis.....	113 Wisconsin St.
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PERU, Indiana.		WHEELING, W. Va.	
SCRANTON,.....	504 Lackawanna Ave.	RALEIGH, N. C.....	7 Fayetteville St.
HARTFORD,.....	278 Main St.	CHARLESTON, S. C.	
ATLANTA, Ga.		COLUMBUS, O.....	97 South High St.
NEW HAVEN,.....	97 Orange St.	DUBUQUE,.....	126 Main St.
NEWARK,.....	807 Broad St.	PROVIDENCE,.....	105 Westminster.

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